



## Geographic Perspectives International



# The NBII International Program



Photo credit: Thomas A. Hermann

Kruger National Park; scenic view from South Africa.

## Background

The National Biological Information Infrastructure (NBII) International Program participates in worldwide biological informatics activities that promote information sharing and infrastructure development across borders. Taking part in these activities helps us highlight and share information, standards, and tools developed through our national initiatives, as well as build capacity in developing nations and enrich data and content within the NBII.

These initiatives are united by a common set of principles. All seek to make biodiversity data freely and easily available to a broad population of users around the world and promote a common set of standards to ensure that the retrieval and exchange of information can take place across political, linguistic, and institutional boundaries. A fundamental characteristic of these international networks is that ownership of the data remains with its source, while still widely available to researchers, resource

mangers, decision-makers, and interested citizens.

The NBII partners with governments and public sector organizations from many countries, as well as non-governmental, inter-governmental, and multinational organizations, academia, and private sector enterprises to fulfill the following objectives:

- Lead the nation on global biodiversity informatics activities.
- Catalog biological information from international sources.
- Create multilingual search capabilities.
- Share invasive species metadata among countries.
- Strengthen biodiversity informatics capabilities of international partner organizations.
- Improve access to biological and ecological data sets.
- Provide free access to images of species with scientifically validated metadata.
- Develop taxonomic authorities with partners worldwide.

## NBII International Activities Include...

### Multilateral, Regional, and Global Initiatives

**Integrated Taxonomic Information System (ITIS):** ITIS provides an automated and authoritative reference

of scientific and common names in English, French, Spanish, and Portuguese for species important to North America. The NBII and ITIS focus on information related to birds, fishes, amphibians, mammals, many reptiles, and several invertebrate groups throughout the world. ITIS also cooperates with Species 2000 to produce the annual Catalogue of Life, a checklist and index of the world's species.

### Inter-American Biodiversity Information Network (IABIN):

IABIN supports the exchange of information across boundaries and enhances biodiversity informatics capacity in 34 countries of the Western Hemisphere. The U.S. Geological Survey (USGS) Biological Informatics Office has been designated as the U.S. IABIN Focal Point and currently holds the IABIN Council Chair position.

### Ocean Biogeographic Information System (OBIS):

OBIS is a Web-based provider of global geo-referenced information on marine species. The NBII is developing a pilot U.S. Regional OBIS Node and serves on the OBIS management committee.

### Global Forest Information Service

**(GFIS):** GFIS is an Internet gateway to forest information resources from around the world. It is an initiative of the Collaborative Partnership on Forests, led by the International Union of Forest Research Organizations. The NBII is a member of the GFIS Implementation Group and serves as the Regional Coordinator for GFIS activities.

### World Data Center for Biodiversity and Ecology (WDCBE):

WDCBE will provide scientists and decision-makers with the infrastructure and tools for accessing and analyzing



*Vicuña in the Torres del Paine region of southern Chile.*

integrated global biodiversity, ecological, and geospatial data sets. The NBII hosts the WDCBE Web site.

**Global Biodiversity Information Facility (GBIF):** The United States is a charter member of this ambitious international effort dedicated to the standardization and global dissemination of species- and specimen-level data. The NBII is the U.S. GBIF Node and assists in its implementation.

**Pacific Biodiversity Information Forum (PBIF):** PBIF seeks to develop a biological knowledge base for Melanesia, Micronesia, Polynesia, and East and South East Asia. It also supports the secretariat for the Pacific Island Round table. The NBII works with PBIF to establish bilateral agreements with other Pacific nations.

**IABIN Invasive Species Information Network (I3N):** IABIN's first Thematic Network, I3N encourages the creation and standardization of national databases, promotes their interoperability, and provides public Internet access to invasive species information for the Americas. The NBII is the founder and manager of I3N, and chairs the I3N Technical Working Group.

**Invasive Species Specialist Group (ISSG):** ISSG, a part of The World Conservation Union, is a global group of scientific and policy experts on invasive species from 41 countries

that provides advice on threats from invasives and control or eradication methods. The NBII hosts the only U.S. mirror site and funds the creation of species profiles in the ISSG Global Invasive Species Database.

**Global Invasive Species Information Network (GISIN):** GISIN supports international cooperation on standards and protocols for collecting, managing, and sharing invasive alien species-related information at a global level. The NBII hosts the GISIN Web site and collaborates with the Convention on Biological Diversity on development of a species profile schema for GISIN.

### Bilateral Initiatives

**New Zealand:** Three new collaborative projects were announced under the United States–New Zealand Climate Action Partnership in the bioinformatics area. These collaborative ventures specifically focus on the development of the Pacific Biodiversity Information Forum; integration of data systems and sharing of biodiversity expertise in the development of a regional Ocean Biogeographic Information System; and joint work on databases and information on invasive species and their management.

**Australia:** The NBII is working with Australian governmental agencies under the United States–Australia Climate Action Partnership on

biological informatics issues. Current projects include collaboration on capacity building, information sharing, and infrastructure development in relation to the Ocean Biogeographic Information System and Pacific Basin biodiversity issues.

**Japan:** The NBII is working with the Japanese Ministry of the Environment, collaborating closely on developing PBIF and sharing data and information on the Ocean Biogeographic Information System.

**Cape Verde:** USA and Cape Verde have signed a joint declaration regarding science and technology cooperation. The USGS is participating as the initial cooperator to aid in the development of a Cape Verde Islands National Resources Information System that will help support the conservation and restoration of ecological and biological resources in the country.

**Paraguay:** The NBII is partnering with Guyra Paraguay, an NGO, on biodiversity informatics projects related to data rescue and images. The NBII is working closely with this NGO to assist with infrastructure development and improving information sharing.

### For More Information

To learn more about the NBII International Program, please contact:

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